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(71) Applicant *(for all designated States except US)*: UNISEARCH LIMITED [AU/AU]; 76 Wentworth Street, Cnr. King & Wentworth Streets, Randwick, NSW 2031 (AU).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: KOCH, Michael, Herman [DE/AU]; 85 Union Street, Erskineville, NSW 2043 (AU). LAMB, Robert, Norman [AU/AU]; 9 Gamut Road, Engadine, NSW 2233 (AU). TIMBRELL, Peter, Yorke [CA/CA]; 12 Silver Aspen Crescent, Ottawa, Ontario K1B 3C3 (CA). MAR, Gock, Leong [FJ/AU]; 7/35–37 Robertson Street, Kogarah, NSW 2217 (AU).

(74) Agent: GRIFFITH HACK; G.P.O. Box 4164, Sydney, NSW 2001 (AU).

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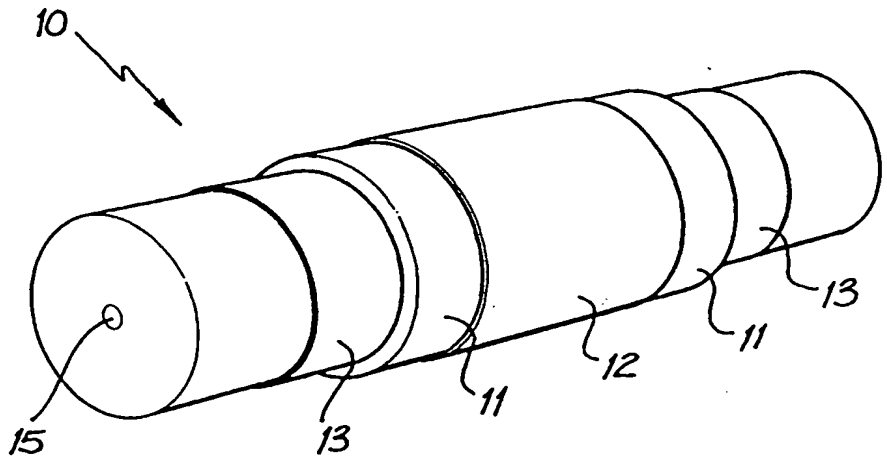
(54) Title: FABRICATION OF ZINC OXIDE FILMS ON NON–PLANAR SUBSTRATES AND THE USE THEREOF



(57) Abstract

A method of manufacture of a substantially continuous circumferential coating on a non–planar substrate, is disclosed the method comprising the steps of: utilising a substantially non directional deposition technique and a substantially static substrate deposition geometry to deposit the coating. Coatings can be deposited which include piezo–electric modulation characteristics or electro–optic modulation characteristics. Ideally the coating has semiconducting properties. The type of coating ideally includes Zinc–Oxide coatings. The non directional deposition technique can comprise chemical vapour deposition via single source chemical vapour deposition. Suitable substrates include optical fibres which are clamped onto a substantially planar heating surface during the deposition. The optical fibre can be clamped at a portion of the length of the fibre which is located at one end of a heating surface during the deposition such that movement of a free end of the optical fibre is limited to movement substantially along the axis of the optical fibre.